



OSTEOPOROSIS, FRACTURES, AND VITAMIN D DEFICIENCY IN NURSING HOME RESIDENTS

Evidence points to a very high proportion of nursing home residents being vitamin D deficient. This vitamin D deficiency contributes to osteoporosis, weakness, falls, and fractures.

After a literature review and consultations with leaders in endocrinology at University of Missouri, Saint Louis University, and Washington University, the Long Term Care Best Practices Coalition suggests consideration of the following recommendations for nursing home residents.

1. Measure vitamin D levels and treat per findings.
 - a. 25-hydroxy vitamin D level less than 20 ng/ml
 - i. Give 50,000 units vitamin D weekly for 6 months then 1,000 units of vitamin D daily. Repeat 25-hydroxy vitamin D level at three and six months.
 - b. 25-hydroxy vitamin D level 20 – 30 ng/ml
 - i. Give 1,000 units of vitamin D daily and repeat 25-hydroxy vitamin D in 6 months.
 - c. 25-hydroxy vitamin D level above 30 ng/ml
 - i. Continue current routine.
2. Alternatively place all residents on 1,000 units of vitamin D supplementation daily
3. Calcium supplementation 500 – 1,000 mg/ daily
4. Exercise programs may be beneficial (i.e., aerobic, resistance, and Tai Chi)
5. Bisphosphonates are indicated for those with documented osteoporosis and/or osteoporotic fractures.

Above measures may not be indicated in those residents at end of life or on hospice.